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| 09/889,320      | 01/10/2002  | Lars Jansson         | YAMAH5.523APC       | 2320             |

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| EXAMINER |
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VANAMAN, FRANK BENNETT

|          |              |
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| ART UNIT | PAPER NUMBER |
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3618

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/889,320

Applicant(s)

JANSSON ET AL.

Examiner

Frank Vanaman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-34, 36-42 and 55-59 is/are pending in the application.
- 4a) Of the above claim(s) 25-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23, 24, 30-34, 36-42, 55-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **Continued Examination**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 10, 2006 has been entered.

### **Status of Claims**

2. Claims 23-34, 36-42, 55-59 are pending, claims 25-29 being withdrawn from consideration.

### **Drawings**

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cover portion having an outermost axial face within the hub (claims 23, 55) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**Claim Rejections - 35 USC 112**

4. Claims 23, 24, 30-34, 36-42, and 55-59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The independent claims recite the cover as having an axially outermost portion within the hub, however the specification as filed fails to support such a limitation. See pages 25-26 of the specification, where the cover and its constituent portions are discussed, but the provision of an axially outermost portion being located within the hub is not disclosed. Note in addition drawing figures 11 and 13, which clearly show an axially outermost portion of the cover (e.g., 66) as extending substantially beyond the hub, in substantially marked contrast to that which is claimed.

5. Claims 23, 24, 30-34, 36-42, 55-59 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 23 and 55, in the portions amended by applicant, the recitation of (1) an outermost radial edge being disposed axially away from the plane defined by the hub circumferential edge, and (2) the outermost axial face of the hub being disposed within the hub appears to be contradictory.

6. As regards claims currently rejected under 35 USC §112, second paragraph, please note that rejections under 35 USC §102 and 103 should not be based upon considerable speculation as to the meaning of the terms employed and assumptions as to the scope of the claims when the claims are not definite. See *In re Steele* 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). When no reasonably definite meaning can be ascribed to certain terms in a claim, the subject matter does not become anticipated or obvious, but rather the claim becomes indefinite. See *In re Wilson* 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). As such the currently pending claims may be subject to prior art rejections not set forth herein upon the clarification of the claim language.

**Claim Rejections - 35 USC § 103**

7. The appropriate citation of 35 U.S.C. 103 relied upon herein may be found in the previous office action.

8. Claims 23, 24, 33, 34, 36-41, and 55-59, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Ohshita et al. (US 5,873,428). Ohshita et al. teach a vehicle having at least a front and rear wheel, with a frame supporting an engine (23), the front wheel (11) and rear wheel (17), the front wheel connected by a fork (19), the vehicle including a drive system wherein a hydraulic drive is provided for the front wheel-- including a pump (31), a motor (36), an accumulator (42), and connecting piping, the pump driven by the engine (24, 32, 33, 34, 35) the motor configured to drive the wheel (37, 38, 39, 41) with the accumulator providing a system pressure; the system having supply (43) and return (45) passages, with the accumulator and a filter (49) located in the return passage; the drive including a valve (47) which allows the wheel to be driven or to free-wheel (at which time it may run at any desired speed compared to the rear wheel since there is no drive connection to the front wheel in this condition), the wheel including a wheel shaft (63) mounted on the fork (19a, 19b) a cover (66) fixed with respect to the fork and providing an aperture in which the motor is mounted (e.g., at 68) wherein a portion of the motor output shaft (37) which extends back into the motor, extends through the aperture; the wheel having an internal gear (39) the motor output shaft having a mating gear (38) which engages the internal gear; the internal hub portion of the wheel, which may rotate about an axis (proximate 59) having a generally cylindrical shape with a closed end (to the left in figure 6) and an opposite end which is closed by the cover (66) The open edge (e.g., proximate numeral 67, figure 6) defining a plane, the cover having at least a flange portion (note section, figure 6) extending inwardly of the outer periphery of the wheel hub and thus disposed in part between the plane and the closed end of the hub, and further including an outer edge (note chamfer below the engagement with sealing arrangement 67) which protrudes outwardly (i.e., to the right in figure 6) from the plane defined by the open end of the hub (i.e., the face of the chamfer), the outermost axial faces of the cover being disposed radially within the periphery of the hub (i.e., as seen from the right, figure 6), to

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the breadth claimed, the cover further including a sealing arrangement (67) which is also positioned so as to not extend beyond the outer periphery of the hub (and thus disposed inwardly from the open end to the breadth claimed), radially between the outer radial periphery of the cover and the inner radial boundary of the hub, the wheel being supported on the shaft by two bearing assemblies (not referenced, note figure 6).

As regards claims 23, 55 and 58, the reference to Ohshita et al. fails to teach the disk of the cover as being disposed in the recess of the hub. It is well known in the manufacturing arts to recess an element in order to provide a more compact arrangement, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to recess the disk portion of the cover (66) within the periphery of the hub (e.g., such that the outer face of cover 66 is laterally inward of the outer end of the hub, proximate 67) for the purpose of providing a more compact wheel profile, reducing the volume the central portion occupies.

As regards claims 33 and 34, the reference fails to specifically teach the use of either a bladder accumulator or a piston accumulator. Inasmuch as both types of accumulator are well known and interchangeable, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the accumulator taught by Ohshita et al. as either a piston accumulator or a bladder accumulator for the purpose of using a commonly available type of accumulator, for example the bladder accumulator in order to reduce weight overall, or the piston accumulator in order to avoid the additionally required poppet valve needed for the proper operation of a bladder accumulator.

As regards claim 37, the reference to Ohshita et al. fails to specifically teach a labyrinth seal on the peripheral surface of the cover, however in that a labyrinth seal is well known for assisting in the minimization of flow without providing further frictional rubbing between relatively moving parts, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a labyrinth seal on the cover in addition to the taught seal in order to provide a small further reduction in the material which may leak into the inner portion of the hub.

As regards claim 38, the reference to Ohshita et al. fails to specifically teach that a portion of the shaft extends through the aperture from the motor to the gear. In that it is well known to make elements with moving parts accessible for repair, it would have been obvious to one of ordinary skill in the art at the time of the invention to mount the entire motor portion (36) externally of the cover (66) so as to facilitate easy repair of the motor without the need to disassemble the rest of the wheel mechanism. As regards claim 40, the reference to Ohshita et al. fails to specifically teach both a needle bearing and a ball bearing. In that both needle and ball bearing are equally well known, and wherein a radial distance taken up by a needle bearing is reduced from that of a ball bearing, it is not considered to be beyond the skill of the ordinary practitioner to replace one of the ball bearings (e.g., the set closer to plate 66) with a needle bearing, for the purpose of increasing the free space inside the wheel hub area near the mounting of the closure plate, facilitating easier maintenance.

9. Claim 30, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshita et al. in view of Taig (US 5,328,002). The reference to Ohshita et al. is discussed above and fails to teach that the system includes a housing, wherein the filter and accumulator are contained in the housing. Taig teaches a hydraulic supply system for a vehicle system wherein an accumulator (30) is provided in the same housing as a filter (190). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the filter and accumulator taught by Ohshita et al. in the same housing as taught by Taig, for the purpose of incorporating both elements (with particular noting that Ohshita's filter and accumulator are located one after the other in circuit) in a single enclosure, thus reducing the number of mounting elements needed to attach the system to the vehicle.

10. Claims 31 and 32, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshita et al. in view of Taig and Bedenbender et al. (US 3,929,206). The references to Ohshita et al. and Taig are discussed above and fail to teach the arrangement of the accumulator and filter such that longitudinal axes of each are substantially parallel. Bedenbender teaches an arrangement wherein a filter (256) and a set of accumulators (264, 266, 268) are arranged side-by side (figure 8a, figure 9)

having their respective longitudinal axes parallel to one another. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the arrangement of accumulator and filter of the vehicle of Ohshita et al. as modified by Taig, such that longitudinal axes of both elements are parallel, for the purpose of reducing space in the mounted assembly.

As regards claim 32, the examiner takes official notice that the use of an exhaust pipe and muffler for an internal combustion engine on a land vehicle is very well known, and considered to be an inherent portion of the vehicle if taught to include an internal combustion engine. As regards the locating of the housing with the accumulator and filter proximate the muffler, it would have been obvious to one of ordinary skill in the art at the time of the invention to locate the accumulator and filter housing proximate a muffler (for example under a seat portion of the vehicle), for the purpose of allowing the housing to be placed in an otherwise unused space in the vehicle.

11. Claim 42, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshita et al. in view of Heible (US 5,894,903). The reference to Ohshita et al. is discussed above and fails to teach the system as configured to drive the front wheel at a speed less than that of the rear wheel. Heible teaches a hydraulic drive for a motorcycle wherein the front wheel is driven when the rear wheel runs in a range of 1% to 3% faster than the front wheel (col. 3, lines 32-42). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the drive system of the vehicle of Ohshita with the control for driving the front wheel when the rear wheel speed is greater, for the purpose of controlling the engagement of drive to the front wheel.

#### **Response to Comments**

12. Applicant's comments, filed with the amendment, have been considered, but are not persuasive. As regards the assertion that the Ohshita reference fails to teach a radial edge being spaced from the plane defined by the periphery of the hub, please note that the face of the chamfer (the outermost radial edge of the cover taught by Ohshita et al.) commences at an axial position approximately corresponding to the plane and extends outwardly (i.e., to the right, figure 6) such that all but the distal-most

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end of the face is spaced apart from the plane. As regards the disposition of the axial face of the cover within the hub, the examiner notes that the outermost axial face is radially disposed within the periphery of the hub, as would be seen from an elevation (looking from the right in figure 6). Further, it is not deemed to be beyond the skill of the ordinary practitioner to adjust the position of the disk portion of the cover to be within the recess defined by the hub for the purpose of providing a more compact arrangement. Note that this position has been advanced in multiple office actions prior to the instant action with respect to claim 58, and applicant has not argued against such a position. Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

Applicant's comments, directed to arguments not presented by applicant, are noted, however applicant is reminded that any amendment and its comments are expected to constitute a full and complete response to the previous office action. Pertinent arguments are expected to be presented in a seasonable manner. The amendment is understood to comprise a conscious attempt to fully and completely reply to the previous office action. Any arguments omitted are understood to have been consciously omitted by applicant.

37 CFR 1.111(b): In order to be entitled to reconsideration or further examination, the applicant or patent owner must reply to the Office action. The reply by the applicant or patent owner must be reduced to a writing which distinctly and specifically points out the supposed errors in the examiner's action and must reply to every ground of objection and rejection in the prior Office action. The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. The applicant's or patent owner's reply must appear throughout to be a bona fide attempt to advance the application or the reexamination proceeding to final action. A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims

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patentably distinguishes them from the references does not comply with the requirements of this section.

### Conclusion

13. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


A response to this action should be mailed to:

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Commissioner for Patents  
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Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**



Handwritten signature of F. Vanaman, dated 7/3/08.